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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,402	03/29/2004	DahShiam Chiao		3200

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DahShiam Chiao
11 Wood Avenue
Albertson, NY 11507

EXAMINER

BOECKMANN, JASON J

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,402

Applicant(s)

CHIAO ET AL.

Examiner

Jason J. Boeckmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) 2,3 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to because figures 1-6c include more than one view per figure. Each view must be numbered in consecutive Arabic numerals, starting with 1 (37 CFR 1.84 (u)(1)). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for

pneumatically pumping said material of claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicant is reminded to amend the Brief Description of the Figures and the Detailed Description of the Preferred Embodiments to accompany any changes in the figures.

Claim Objections

Claims 2, 3 and 18 are objected to because of the following informalities: Each claim must be the object of a sentence starting with "I (or we) claim," "The invention claimed is" (or the equivalent). MPEP 608.01(m).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

The claims are replete with errors too numerous to mention specifically. The following noted informalities are merely exemplary thereof.

Examiner suggests some corrections for the errors listed below. This list is not inclusive and is intended as a guideline for the applicant to follow.

1. The word, "reservoirs," in line 1 of claim 1 should be changed to, "reservoir," in order be consistent with the rest of the claim.
2. The word, "nozzles," in line 9 of claim 1, line 1 of claim 8, line 4 of claim 8, line 2 of claim 10, and line 1 of claim 18 should be changed to, "nozzle," in order to be consistent with the rest of the limitation.
3. In the first line of claim 2, "is," should be changed to, "are."
4. The word "a" should be inserted before housing in line one of claim 10 and claim 17.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is unclear as to what is meant by line 9. Does the reservoir contain a replaceable spraying nozzle region, a fixed spraying nozzle region, or both? The term, "passive or user-induced," in line 13 of the claim is indefinite because it is unclear how exactly the material flows from the material storage region to the spraying nozzles region.

Claims 2, 3 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not understood how the nozzles can be mounted in a fixed relation to the body of the device (lines 1 and 2), but also be adjustable in relation to one another (last line of the claim). Additionally, the word, "usually," in line 3 of claims 2, 3 and 18 is indefinite, furthermore, the limitation beginning with, the nozzles, in line 4 of claims 2, 3 and 18, is vague and ambiguous. Are the nozzles adjustable with respect to each other or are they not?

Claims 2, 3 and 18 also begin with the phrase, "A method as claimed in" the independent claim, but the independent claim is an apparatus claim. Furthermore, there is no method or steps provided in claims 2, 3 and 18.

Claims 4-9 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are apparatus claims that depend from method claims 2, 3 and 18 which all depends from an apparatus claim. The nature of claims 4-9 and 22 is unclear, are the claims referring to an apparatus or a method?

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Claims 4, 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to which nozzle is being referred to in line 1 of the claim. Previously a plurality of nozzles has been claimed, not just one nozzle is being referred to.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to how the spraying nozzles can be mounted to the body of the device and the body of an individual reservoir at the same time.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear from the claims and the specification what is meant by the top of the multiple replaceable reservoirs.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to what is meant by the first paragraph of claim 10. The first paragraph of the claim is narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear from the claims and the specification what is meant by a semi-insulating material as in line 3 of claim 22.

Claim 1 recites the limitation "spraying nozzles" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation " nozzles" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation " the body of the device" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation " the body of the multiple replaceable reservoirs" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 4, 5 and 7 recite the limitation " tip of the nozzle " in line 1. There is insufficient antecedent basis for this limitation in the claims.

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Claim 6 recites the limitation " tip of the nozzle tube" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "axis of the body of the device" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the axis of the top of the multiple replaceable reservoirs" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "multiple spraying nozzles units" in line 1 and line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "dispensing nozzles" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the charged aerosol" in lines 16-17. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the nozzle" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is also unclear what nozzle the material is being pumped to.

Claim 12 recites the limitation "actuating means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the forward extremity" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-9 are rejected, as well as understood, under 35 U.S.C. 102(b) as being anticipated by Coffee (4,962,885).

Coffee shows a reservoir or cartridge for use with an electrostatic spraying device, the spraying device comprising high voltage circuitry (10, 11, 14), the reservoir

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or cartridge comprising: at least one electrostatically sprayable material storage region (6), at least one fixed spraying nozzle region (9), at least one material conduction tube region (7) connecting the material storage region to the spraying nozzle region, at least one nozzle ring configuration (13, 15) for generating the electric field in the vicinity of the nozzles.

Regarding claims 2 and 3, as well as understood, the nozzles are mounted in a fixed relation to the body and the nozzle ring configuration is in the form of an annular cable (13) mounted on the body of the device in a fixed relation to the nozzles (figure 2).

Regarding claims 6 and 7, as well as understood, the nozzles are mounted in a fixed relation to the body and are arranged at an angle of zero degrees to the axis of the device.

Regarding claim 8 and 9, as well as understood, the spraying nozzles are mounted to the body of each reservoir (see figure 1).

Claims 17-19 are rejected, as well as understood, under 35 U.S.C. 102(b) as being anticipated by Ohno et al (3,887,928).

Ohno et al shows an electrostatic spraying device comprising a high voltage generator (7), a dispensing nozzle (3), a fixed reservoir (2) for containing materials to be sprayed, means (wire in figure 2) coupling the high voltage generator to the material, a nozzle ring configuration (9) having a high voltage supply (10) of the same polarity as that applied to the material (column 4, lines 42-3), the nozzle ring configuration being located forwards of the nozzle (3).

Regarding claim 18, as well as understood, the nozzle is mounted in a fixed relation to the body (2) and the nozzle ring configuration is in the form of an annular cable (9) mounted on the body of the device in a fixed relation to the nozzles (figure 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10-16 are rejected, as well as understood, under 35 U.S.C. 103(a) as being unpatentable over Ohno et al (3,887,928) in view of Wang et al (US 2004/0050946).

Ohno et al shows an electrostatic spraying device comprising a high voltage generator (7), a dispensing nozzle (3), a fixed reservoir (2) for containing materials to be sprayed, means (wire in figure 2) coupling the high voltage generator to the material, a nozzle ring configuration (9) having a high voltage supply (10) of the same polarity as that applied to the material (column 4, lines 42-3), the nozzle ring configuration being located forwards of the nozzle (3), but does not show a pumping means for supplying the material through a passage leading from the dispensing nozzle. However, Wang et al shows an electrostatic spraying device comprising a pump for supplying the material from the reservoir to the nozzle. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to add the pumping means of Wang et al to the electrostatic sprayer of Ohno et al in order to deliver a greater quantity of material to the nozzle region.

Regarding claims 13-16, as well as understood, the spray device of Ohno et al as modified by Wang et al inherently includes a means for actuating both the pumping means and the high voltage generator. The priming of the passage is performed when the pumping means is first actuated and the material is first introduced into the nozzle region.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 10 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 14 and 15 of copending Application No. 11/021,045. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims disclose an electrostatic spraying device comprising: a high voltage circuitry, a storage region, a nozzle region, a material conducting region, a nozzle ring configuration and a pumping means.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Coffee et al (6,595,208) shows an electrostatic spray device with a nozzle ring and a high voltage generator. Noakes (5,337,963) shows an electrostatic spraying device including a user controlled actuating means, a high voltage generator and a reservoir. Ohno et al (3,941,312) shows a device similar to the Ohno et al patent uses in the office action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571) 272-2708. The examiner can normally be reached on 7:30 - 5:00 m-f, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJB JJB 7/10/06



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